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Modal Fields of a Triangular Microcavity Laser with a Piercing Hole

Spiridonov A., Karchevskii E.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018 IEEE. Eigenmodes of triangular microcavities with piercing holes in the center are computed as solutions of the Lasing Eigenvalue Problem using the system of Muller boundary integral equations and the Nyström method. The numerical study demonstrates that small centered holes in equilateral triangular microcavities can lead to a significant growth of the directionality of laser modes with the preservation of their low thresholds.

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Keywords

lasing eigenvalue problem, microcavity laser, Muller boundary integral equation, Nyström method

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